

**CLEAN WATER ACT  
COMPLIANCE INSPECTION**

Facility Name

[REDACTED]

Facility Address

[REDACTED]

Moorefield, WV 26836

Investigation Dates

On-Site Inspection – May 22, 2012

On-Site Inspection – June 16, 2011

Fly-over – November 10, 2010

Inspector

Kyle J. Zieba, Enforcement Officer  
U.S. Environmental Protection Agency, Region 3 (EPA)

Contractor

[REDACTED]

Sampler

Science Application International Corporation (SAIC)

Report Final as of 6/22/12 by Kyle J. Zieba  
Date Signature

## CONTENTS

BACKGROUND.....	3
ON-SITE INSPECTION SUMMARY.....	3
Overview	
Weather	
Interview	
Facility Tour	
Sampling	
SUMMARY OF OBSERVATIONS .....	6
APPENDICES	
A.    Response Letter from David Yaussy	
B.    Site Map	
C.    Photograph Log and Photographs	
D.    Analytical Lab Report	



## BACKGROUND

On November 14, 2011, a Finding of Violation and Order for Compliance (Order) was issued to [REDACTED] requiring him to obtain a National Pollutant Discharge Elimination System (NPDES) permit from the WV Department of Environmental Protection (WVDEP).

On March 5, 2012, EPA received a response to the Order from Mr. David Yaussy, attorney for [REDACTED] outlining [REDACTED] decision not to obtain a NPDES permit and the reasoning behind that decision (see Appendix A).

## ON-SITE INSPECTION SUMMARY

### Overview

On May 22, 2012, Ms. Kyle J. Zieba of the United States Environmental Protection Agency (EPA) and [REDACTED], Science Application International Corporation (SAIC), Contractor to EPA conducted an announced, follow-up inspection at the poultry operation located at [REDACTED], Moorefield, WV 26836 (the "Facility"). The Facility is owned and operated by [REDACTED]. The purpose of the follow-up inspection was to verify compliance with an Order issued by EPA on November 14, 2011. [REDACTED] were present at the inspection. The following agency representatives were also in attendance:

- WVDEP - Robin Dolly and Tom Ditty
- WV Department of Agriculture (WVDA) – Steve Miller, Matthew Monroe and Jason Dalrymple
- WV Farm Bureau - Steve Butler

At approximately 10:00 a.m., EPA and WVDEP representatives entered the facility and implemented WVDA Biosecurity Protocols. All other parties were already present. Ms. Zieba presented her credentials, explained that Section 308 of the Clean Water Act (CWA) provides EPA with the authority to conduct inspections, and outlined the purpose of the inspection. The purpose of the inspection was to verify and supplement the information outlined in Mr. [REDACTED] response letter to EPA's Order submitted by Mr. Yaussy, evaluate any management changes that have occurred since EPA's June 2011 inspection, collect additional information including water and soil samples, and verify whether discharges had been eliminated.

### Weather

During the inspection, it was partly cloudy and the air temperature was in the mid-70's. It did not rain during the on-site inspection. However, there was evidence of a recent rain event at the Facility.

### Interview

I asked [REDACTED] to describe the management changes he had implemented since June 2011. [REDACTED] stated that he had been working on getting funds to implement the management changes, but had not implemented any changes since June 2011.

A list of planned best management practices (BMPs) was developed by USDA NRCS (see Photo 45). Potesta, an environmental consulting firm, visited the farm on May 21, 2012 to begin developing a plan to implement the BMPs recommended by NRCS. One BMP being considered is diverting the stream that flows through a culvert under House 4 into the farm pond. Mr. Robin Dolly told [REDACTED] that ne would need to talk with DEP to get a permit for any stream disturbance activity.

One BMP being considered is to fence the cattle out of the pound and provide off-stream watering in the pasture using an existing pipeline. Another BMP is to add more vegetation to the area between House 2 and 3. However, according to [REDACTED], the integrator requires that the area between the poultry houses be mowed.

### Facility Tour

[REDACTED] escorted everyone in attendance through the Facility pointing out the various areas where management changes were proposed. During the tour, Ms. Zieba took photographs (see Appendix B). As we walked on the access lance between Houses 3 and 4, I observed stormwater standing in puddles (see Photos 3, 4, 5, and 12).

There is a ditch along the east and south sides of House 4 (see Photos 7 and 9). The end pad at the south end of House 4 (see Photo 6) is approximately 30 feet from this ditch (see Photo 10). [REDACTED] stated that he has seen water flow from this ditch through a culvert under an access lane (see Photo 11) into the Farm Pond. One stream enters the Facility from the east (see Photo 8) and is conveyed through a culvert under House 4 to the Farm Pond (see Photo 13).

There are other ditches and drainage pathways that flow to the Farm Pond. I observed a drainage path from the access road area on the west side of House 4 (see Photo 14). There is a large ditch between Houses 2 and 3 (see Photo 16). This ditch flows through a culvert into the Farm Pond (see Photos 30-32). House 2 is at a lower elevation than House 3 (see Photos 17 and 24). I observed dust and feathers on the ground below the ventilations fans on Houses 2 and 3 next to the large ditch (see Photos 18, 25, 26, and 29). I observed drainage paths from the area adjacent to the ventilation fans on House 3 down toward the ditch (see Photo 19). There was standing water in the ditch between House 2 and 3 (see Photo 27). The water in the ditch was below a ventilation fan on House 2 (see Photo 28).

I observed a drainage path from the access road between House 1 and 2, across the area in front of the manure shed toward the vegetated area to the west of the Farm Pond (see Photos 34-38). I observed the drainage path continue downslope through the vegetated area toward the stream the Farm Pond discharges into (see Photo 39).

### Sampling

SAIC collected eight (8) samples and prepared one (1) field blank. Details about each sample are listed in Table 1. The on-site sampling locations are shown on Site Map 1. Photographs of the sampling locations include, but are not limited to, Photos 8, 43, and 44. A summary of the sample results are provided in Tables 2-4 with the corresponding analysis report for each sample provided in Appendix D. All samples were taken the day of the inspection.

Table 1: Sample Identification			
Sample Location #	Sampling Time	Sample Type	Location Description
01-01-SW-01	11:30 AM	Grab-Surface Water	Stormwater runoff pooled between Houses 1 and 2 near manure storage shed
01-01-SS-02	12:15 PM	Composite-Solid	Soil from ditch on the south side of House 4
01-01-SS-03	12:40 PM	Composite Solid	Soil from the ditch between Houses 2 and 3 (near culvert)
01-01-SS-04	12:56 PM	Composite Solid	Soil from the ditch between Houses 2 and 3 (behind mortality shed)
01-01-SW-05	1:40 PM	Grab-Surface Water	Downstream below discharge pipe from farm pond
01-01-SW-06	1:46 PM	Grab-Surface Water	Duplicate sample taken below discharge pipe from farm pond
01-01-SW-07	1:57 PM	Grab-Surface Water	Upstream before culvert under House 4
01-01-SB-08	2:30 PM	Composite-Solid	Background soil sample taken from lawn at [REDACTED] residence
01-01-FB-09	2:44 PM	Grab-Surface Water	Field blank prepared at vehicle

Table 2: Water Sample Results Summary (Nitrogen, Phosphorus and Sediment)						
Sample ID	Total Nitrogen (mg/L)	Total Kjeldahl Nitrogen (mg/L)	Ammonia -N (mg/L)	Nitrate/Nitrite as N (mg/L)	Total Phosphorus (mg/L)	Total Suspended Solids (mg/L)
01-01-SW-01	21.5	21.8	0.7	<0.05	1.70	627
01-01-SW-05	2.64	2.6	5.4	<0.05	0.18	26
01-01-SW-06	2.487	2.5	5.3	<0.05	0.18	27
01-01-SW-07	0.61	0.5	<0.2	0.09	0.06	16
01-01-FB-09	<0.5	<0.5	<0.2	<0.05	<0.05	<1

Table 3: Water Sample Results Summary (Bacteria and Arsenic)				
Sample ID	E.coli	Fecal Coliform	Total Coliform	Arsenic
01-01-SW-01	Presence	20000	Presence	0.020
01-01-SW-05	>2419	20000	>2419	<0.005
01-01-SW-06	-	-	-	<0.005
01-01-SW-07	>2419	8900	>2419	<0.005
01-01-FB-09	-	-	-	<0.005

<b>Table 4: Soil Sample Results Summary</b>							
<b>Sample ID</b>	<b>Total Nitrogen (mg/Kg)</b>	<b>Total Kjeldahl Nitrogen (mg/Kg)</b>	<b>Nitrite as N (mg/Kg)</b>	<b>Nitrate as N (mg/Kg)</b>	<b>Nitrate/ Nitrite as N (mg/Kg)</b>	<b>Total Phosphorus (mg/Kg)</b>	<b>Total Arsenic (mg/Kg)</b>
01-01-SS-02	1652	1650	1.30	<0.7	1.78	357.00	10.500
01-01-SS-03	1921	1910	1.18	9.5	10.6	847	11.800
01-01-SS-04	1962	1900	0.07	61.1	62.4	1360.00	8.630
01-01-SB-08	1747	1740	1.93	4.8	6.76	627	3.260

The following observations are made from the sampling results:

- Surface water runoff collected in puddles in between Houses 1 and 2 show measurable levels of nitrogen compounds, phosphorus, total suspended solids, arsenic and bacteria.
- Surface water collected downstream below the discharge pipe from farm pond shows measurable increases in nitrogen compounds, phosphorus, total suspended solids and bacteria then the water upstream before the culvert under House 4.
- Soil collected in the ditch between Houses 2 and 3 show higher levels of Total Nitrogen, Total Kjeldahl Nitrogen, Nitrate as N, Total Phosphorus and arsenic then background soil samples.

## **SUMMARY OF OBSERVATIONS**

1. No management changes have been implemented since EPA's June 2011 inspection.
2. The Facility's stormwater drainage system conveys water from between the poultry houses through a system of ditches and drainage paths to the Farm Pond.
3. Stormwater, which flows through ditches between the poultry houses, can come into contact with dust and feathers deposited on the ground below the ventilation fans on the poultry houses.
4. Stormwater in puddles around the Facility show measurable levels of nitrogen compounds, phosphorus, total suspended solids, arsenic and bacteria. Soil samples in the man-made ditch between Houses 2 and 3 show higher levels of Total Nitrogen, Total Kjeldahl Nitrogen, Nitrate as N, Total Phosphorus and arsenic then background soil samples. This indicates that stormwater flowing in the ditch between Houses 2 and 3 to the farm pond is contaminated with pollutants commonly found in chicken manure and litter.
5. Surface water collected downstream below the discharge pipe from farm pond shows measurable increases in nitrogen compounds, phosphorus, total suspended solids and bacteria then the surface water upstream before it goes through the culvert under House 4 into the Farm Pond.

## **Appendix A**

Response Letter from David Yaussy





DAVID L. YAUSY  
ATTORNEY AT LAW

P.O. BOX 1791  
CHARLESTON, WV 25326

DIRECT DIAL: (304) 347-8358  
E-MAIL: [dly@ramlaw.com](mailto:dly@ramlaw.com)

March 5, 2012

Andrew Duchovnay, Esq.  
U. S. Environmental Protection Agency  
Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029

Re: [REDACTED]  
Administrative Order  
CW-03-2012-0024DN

Dear Mr. Duchovnay:

On June 16, 2011 Ms. Ashley Toy visited [REDACTED] poultry-broiler operation located near Moorefield, West Virginia, to perform an inspection. On November 14, 2011, a *Finding of Violation and Order for Compliance* were issued by Mr. Jon M. Capacasa to [REDACTED]. The Conclusions of Law and Findings of Violation of the Order state that [REDACTED] is in violation of Section 301 of the Clean Water Act for operating a point source that discharges to a jurisdictional water of the United States without having obtained a National Pollutant Discharge Elimination System (NPDES) permit. Mr. Capacasa ordered [REDACTED] to submit a complete NPDES application, including a site-specific nutrient management plan (NMP), to the West Virginia Department of Environmental Protection within 90 days. (This period of time was later extended to March 5, 2012). He was also ordered to advise EPA within ten days of receipt of the order whether she would comply with the order. [REDACTED] believes he wrote to Ms. Toy within ten days and said that he would apply for a permit.

[REDACTED] has reconsidered the decision to obtain a NPDES permit and does not intend to apply for such a permit at this time. This decision was based upon our belief that there is no discharge of process wastewater from the poultry-broiler production areas at his farm. All operations, as well as chicken litter and raw material storage, are under roof and are not exposed to storm water. Care is taken to clean up material that might spill out during litter transfer operations, or any other activity that might result in material being left on the ground outside of these areas. The incidental presence of insignificant amounts of chicken litter, feed, or similar material on the ground in the barnyard at a farm does not give rise to a regulated discharge. Instead, the only possible discharge from such areas would be unregulated agricultural storm water.

400 FIFTH THIRD CENTER • 700 VIRGINIA STREET, EAST • CHARLESTON, WV 25301 • (304) 344-5800  
140 WEST MAIN STREET • SUITE 300 • CLARKSBURG, WV 26302 • (304) 622-5022  
[www.ramlaw.com](http://www.ramlaw.com)

ROBINSON & McELWEE PLLC IS A MEMBER OF ALFA INTERNATIONAL

{R0682358.1}

ROBINSON & McELWEE PLLC

Andrew Duchovnay, Esq.

March 5, 2012

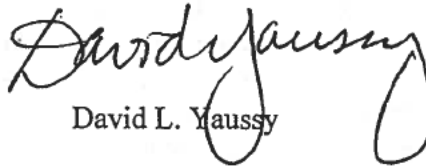
Page 2

██████████ reconsideration is also the result of his decision to make changes to his poultry operations to eliminate discharges to jurisdictional waters. Runoff from the east of his poultry houses will be routed around the southern end of his current storage pond, which will eliminate most of the flow that ends up in his storage pond. ██████████ also intends to redirect water from his roofs and transport it outside the poultry house area, through gutters and drains that do not allow it to come into contact with litter. That will greatly reduce the runoff going to the pond, such that infiltration, evaporation and land application should eliminate all discharges from the pond. Berming and other appropriate site changes should eliminate any other overland discharge, by point source or sheet flow, to jurisdictional waters.

██████████ takes seriously his obligations to the environment. His operations have been nominated for environmental stewardship awards, which is evidence of his commitment to responsible operations. He has committed to making changes to his operations that should eliminate runoff to jurisdictional waters. If there are other reasonable suggestions you or the West Virginia Department of Environmental Protection have for improving his farm's operations he would be glad to discuss them with you. However, at this time he respectfully declines to apply for a NPDES permit for his poultry-broiler operations.

If you would like to discuss this matter further, please contact me.

Sincerely yours,

  
David L. Yaussey

DLY:shb

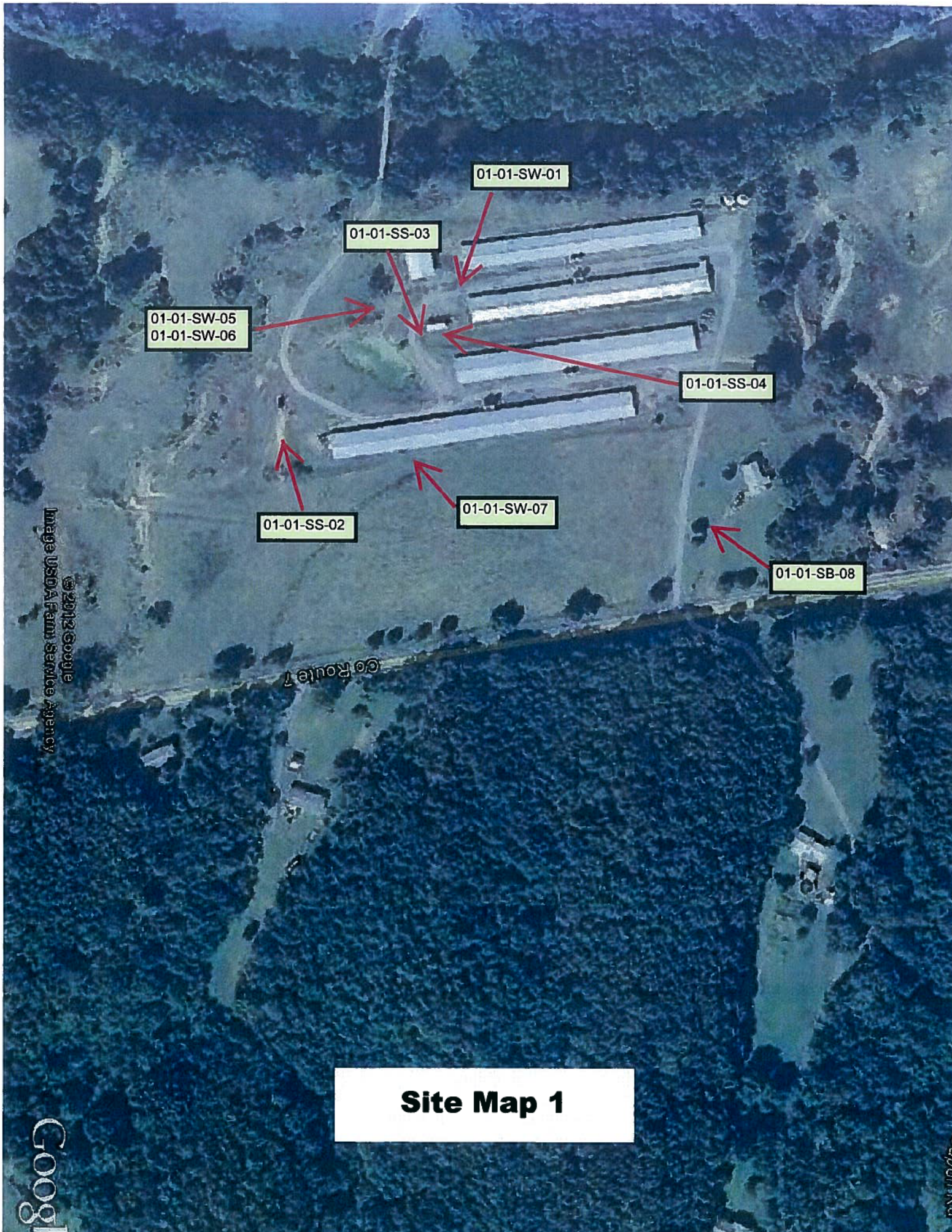
cc: ██████████



## Appendix B

### Site Map





© 2012 Google  
Image USDA Farm Service Agency

**Site Map 1**

Google

Capomano



## Appendix C

### Photo Log and Photographs

### Photograph Log and Photographs from Inspection on May 22, 2012

The photographs were taken by Kyle Zieba using a PENTAX Optio W80 digital camera during the inspection. Original copies of the Photos are on a CD in the file. The Photo Filename is the date and time stamp as recorded by the camera; format is YYYY-MM-DD-H.MM.SS.JPG. Photo coordinates were recorded using a GPS unit.

Photo Reference	Photo Filename and Coordinates	Description
Photo 1	2012-05-22--10.20.37 [REDACTED]	Log Book Entry with Facility Information
Photo 2	2012-05-22--10.22.44 [REDACTED]	GPS Unit - Used to sync with digital camera
Photo 3	2012-05-22--10.25.57 [REDACTED]	Stormwater standing in puddles on access lane between Houses 3 and 4
Photo 4	2012-05-22--10.26.08 [REDACTED]	Stormwater standing in puddles on access lane between Houses 3 and 4
Photo 5	2012-05-22--10.29.33 [REDACTED]	Stormwater standing in puddles on access lane between Houses 3 and 4
Photo 6	2012-05-22--10.30.36 [REDACTED]	South end of House 4
Photo 7	2012-05-22--10.36.10 [REDACTED]	Ditch along pasture east of House 4 looking north
Photo 8	2012-05-22--10.37.15 [REDACTED]	Stream flowing west through pasture east of House 4; Sampling Location
Photo 9	2012-05-22--10.47.11 [REDACTED]	Ditch along pasture east of House 4 looking south
Photo 10	2012-05-22--10.49.07 [REDACTED]	South end of House 4 in relation to ditch along pasture to the east
Photo 11	2012-05-22--10.49.49 [REDACTED]	Culvert to farm pond from ditch along east and south sides of House 4
Photo 12	2012-05-22--10.52.58 [REDACTED]	Access lane between Houses 3 and 4 with standing water in depressions; Farm Pond on the left
Photo 13	2012-05-22--10.54.32 [REDACTED]	Farm Pond
Photo 14	2012-05-22--10.54.49 [REDACTED]	Drainage path from access road area on the west side of House 4
Photo 15	2012-05-22--10.55.17 [REDACTED]	South end of House 3
Photo 16	2012-05-22--10.55.43 [REDACTED]	Area with ditch between Houses 2 and 3
Photo 17	2012-05-22--10.55.43-1 [REDACTED]	Area with ditch between Houses 2 and 3

Photo 18	2012-05-22--10.56.17 [REDACTED]	Ground below ventilation fan on the west side of House 3 with dust and feathers
Photo 19	2012-05-22--10.58.13 [REDACTED]	Drainage ditch from elevated area next to House 3 toward ditch between Houses 2 and 3
Photo 20	2012-05-22--10.58.57 [REDACTED]	Dust and feathers below other ventilation fans on House 3 in relation to drainage ditches
Photo 21	2012-05-22--10.59.52 [REDACTED]	North end of House 3
Photo 22	2012-05-22--11.00.04 [REDACTED]	Drainage path from north end of House 3 down access lane on the north side of the Facility
Photo 23	2012-05-22--11.00.31 [REDACTED]	North end of House 2
Photo 24	2012-05-22--11.00.41 [REDACTED]	Looking south from the north end of House 2 at ditch between House 2 and 3
Photo 25	2012-05-22--11.01.01 [REDACTED]	Dust and feathers below ventilation fan on House 2 in ditch between House 2 and 3
Photo 26	2012-05-22--11.01.55 [REDACTED]	Area below ventilation fan adjacent to saturated area in ditch between House 2 and 3
Photo 27	2012-05-22--11.02.58 [REDACTED]	Standing water in ditch between House 2 and 3
Photo 28	2012-05-22--11.03.04 [REDACTED]	Ventilation fan on House 2 in relation to standing water in ditch between House 2 and 3
Photo 29	2012-05-22--11.04.00 [REDACTED]	Area below another ventilation fan on House 2 adjacent to ditch between House 2 and 3
Photo 30	2012-05-22--11.04.45 [REDACTED]	Ditch between Houses 2 and 3 near culvert to Farm Pond
Photo 31	2012-05-22--11.04.58 [REDACTED]	Culvert from ditch to Farm Pond
Photo 32	2012-05-22--11.05.46 [REDACTED]	Culvert outlet to Farm Pond
Photo 33	2012-05-22--11.06.09 [REDACTED]	Mortality compost shed to the south of House 2 and west of ditch between Houses 2 and 3
Photo 34	2012-05-22--11.06.21 [REDACTED]	Manure shed with farm equipment
Photo 35	2012-05-22--11.06.54 [REDACTED]	Area between House 2 and manure shed
Photo 36	2012-05-22--11.07.07 [REDACTED]	Area in front of manure shed
Photo 37	2012-05-22--11.07.20 [REDACTED]	Stormwater standing in puddle on access lane between Houses 1 and 2
Photo 38	2012-05-22--11.07.56 [REDACTED]	Drainage path from access lane between Houses 1 and 2 and area in front of manure shed to grassy area south of manure shed
Photo 39	2012-05-22--11.10.43 [REDACTED]	Drainage path from Photo 38 through grassy area toward stream from outlet of Farm Pond

Photo 40	2012-05-22--11.12.35 [REDACTED]	Area to the west of House 1
Photo 41	2012-05-22--11.25.51 [REDACTED]	Area at the north end of House 4 with access lane between Houses 3 and 4
Photo 42	2012-05-22--11.33.08 [REDACTED]	Saturated area in ditch between Houses 1 and 2
Photo 43	2012-05-22--11.33.28 [REDACTED]	Stormwater in puddle from ditch between Houses 1 and 2; Sampling Location
Photo 44	2012-05-22--13.37.35 [REDACTED]	Outlet of Farm Pond; Sampling Location
Photo 45	2012-05-22--14.37.08 [REDACTED]	2012 EQIP Cost Estimate – List of Proposed BMPs
Photo 46	2012-05-22--15.07.42 [REDACTED]	GPS Unit - Used to sync with digital camera

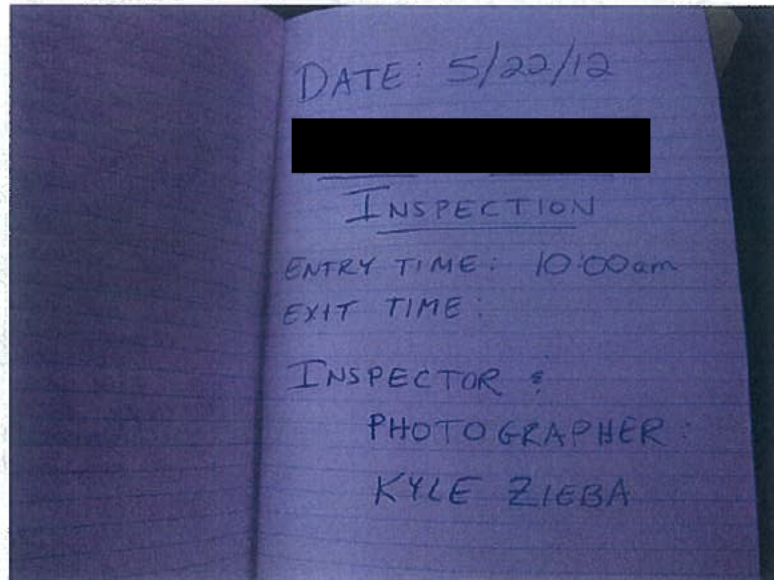


Photo 1



Photo 2



Photo 3



Photo 4





Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10





Photo 11



Photo 12



Photo 13



Photo 14





Photo 15

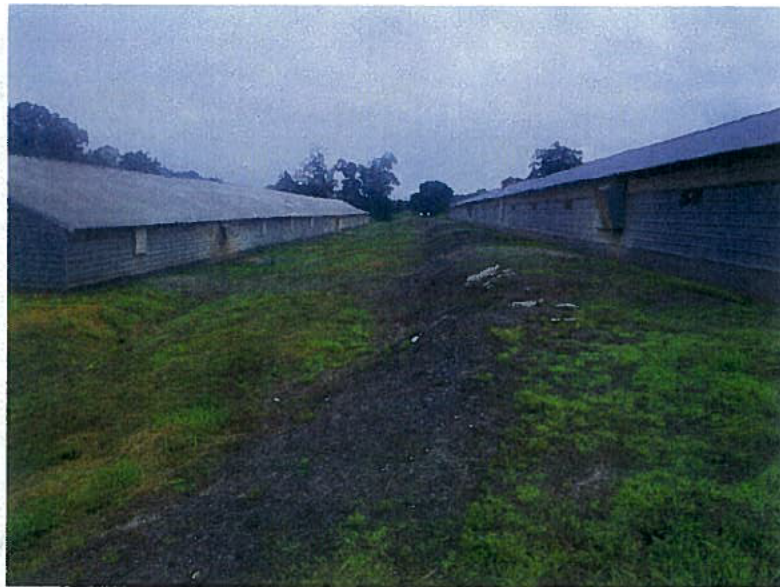


Photo 16



Photo 17



Photo 18



Photo 19



Photo 20





Photo 21



Photo 22



Photo 23



Photo 24





Photo 25



Photo 26



Photo 27

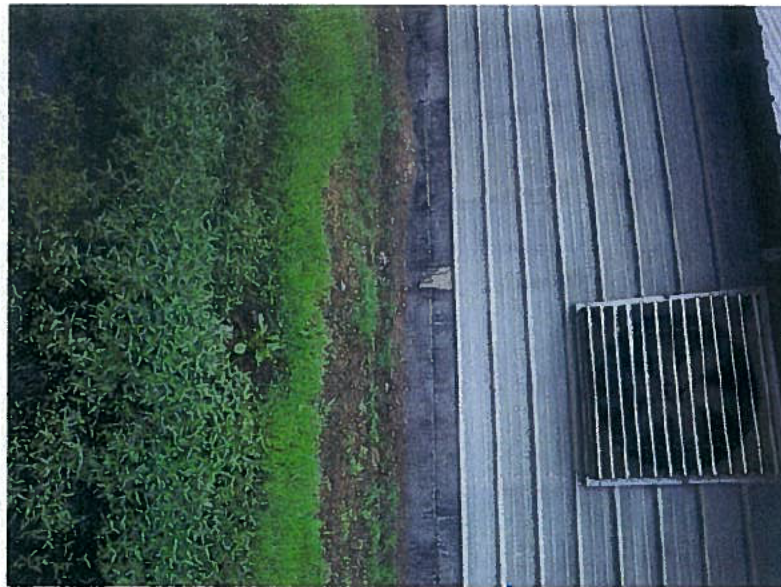


Photo 28





Photo 29



Photo 30



Photo 31



Photo 32





Photo 33



Photo 34



Photo 35



Photo 36





Photo 37



Photo 38



Photo 39



Photo 40





Photo 41



Photo 42



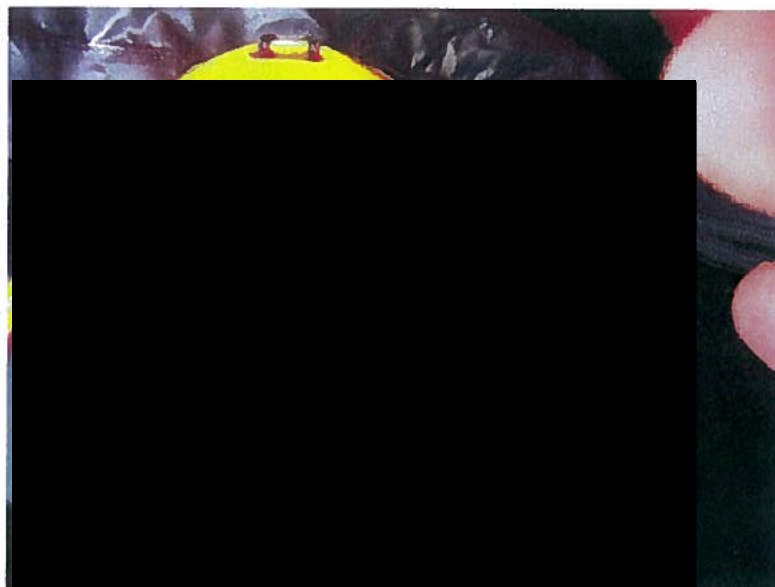
Photo 43



Photo 44

Facility Name	Account	Expend	Unit Cost	Total
Quarantine	81000	350	8.81	2185
Quarantine Area (Quarantine)	81000	0.25	6.43	192
Quarantine Area (Quarantine)	81000	0.25	1111	596
Quarantine Area (Quarantine)	81000	1060	2.11	2716
Quarantine	81000	200	2.17	434
Quarantine	81000	1	1119	1119
Quarantine	81000	1000	6.46	9180

Photo 45



**Photo 46**



## **Appendix D**

### **Analytical Lab Report**



**Inboden Environmental Services, Inc.****5790 Main Street, Mt. Jackson, VA 22842****Analytical Report Form**

**Customer:** SAIC  
8301 Greensboro Drive  
McLean, VA 22102

**Contact:** [REDACTED]

**Special Notes:** REVISED

**Report Date:** 6/13/2012  
**Batch ID:**  
**Received Date:** 5/22/2012  
**Sampler:** Sampled by, Client  
**Sample Priority:** Normal

**Sample Location:** 01-01-SW-01  
**Sample ID Number:** 1205221733

**Sample Type:** Grab - Surface Water  
**Sample Date & Time:** 5/22/2012 11:30 AM

Parameter	Result	IES QL	Units	Method	Analysis Date	Analysis Time	Analyst
Ammonia as N	0.7	0.2	mg/L	*SM-4500NH3-F	6/1/2012	8:00	mi
E.coli	Presence	1	N/CML	*Colilert-24/*Colilert-18	5/22/2012	17:25	sm
Fecal Coliform	20000	1	N/CML	*SM-9222-D	5/22/2012	17:45	nwampler
Nitrate/Nitrite as N	< 0.05	0.05	mg/L	353.2 (Rev 2.0, 1993)	5/29/2012	8:57	jrr
Total Kjeldahl Nitrogen	21.8	0.5	mg/L	*ASTM D3590-02 (A)	6/11/2012	10:37	nwampler
Total Coliform	Presence	1	N/CML	*Colilert-24/*Colilert-18	5/22/2012	17:25	sm
Total Nitrogen	21.5	0.5	mg/L	*Calculation	6/13/2012	10:00	sm
Total Phosphorus	1.70	0.05	mg/L	*HACH 8190	6/1/2012	13:00	sm
Total Suspended Solids	627	1	mg/L	*SM-2540-D	5/29/2012	8:30	nwampler
Total Arsenic	0.020	0.005	mg/L	200.7	6/4/2012	10:42	jrr

**Sample Location:** 01-01-SS-02  
**Sample ID Number:** 1205230901

**Sample Type:** Composite - Solid  
**Sample Date & Time:** 5/22/2012 12:15 PM

Parameter	Result	IES QL	Units	Method	Analysis Date	Analysis Time	Analyst
Nitrate as N	< 0.7	0.696	mg/Kg	*353.2	5/25/2012	14:24	jrr
Nitrate/Nitrite as N	1.78	0.696	mg/Kg	353.2 (Rev 2.0, 1993)	5/25/2012	14:24	jrr
Nitrite as N	1.30	0.07	mg/Kg	*353.2	5/25/2012	14:24	jrr
Total Kjeldahl Nitrogen	1,650	34	mg/Kg	351.2 (Rev 2.0, 1993)	5/29/2012	13:42	jrr
Total Phosphorus	357.00	9.24	mg/Kg	*365.1	6/1/2012	9:24	jrr
Total Arsenic	10.500	0.337	mg/Kg	6010C	6/4/2012	16:53	jrr
Total Nitrogen	1652	34.7	mg/Kg	Calc: 351.2/353.2	5/29/2012	13:42	jrr



**Inboden Environmental Services, Inc.****5790 Main Street, Mt. Jackson, VA 22842****Analytical Report Form**

**Customer:** SAIC  
8301 Greensboro Drive  
McLean, VA 22102

**Contact:** [REDACTED]

**Special Notes:** REVISED

**Report Date:** 6/13/2012  
**Batch ID:**  
**Received Date:** 5/22/2012  
**Sampler:** Sampled by, Client  
**Sample Priority:** Normal

<b>Sample Location:</b>	01-01-SS-03	<b>Sample Type:</b>	Composite - Solid
<b>Sample ID Number:</b>	1205230906	<b>Sample Date &amp; Time:</b>	5/22/2012 12:40 PM

Parameter	Result	IES QL	Units	Method	Analysis Date	Analysis Time	Analyst
Nitrate as N	9.5	0.543	mg/Kg	*353.2	5/25/2012	14:24	jrr
Nitrate/Nitrite as N	10.6	0.543	mg/Kg	353.2 (Rev 2.0, 1993)	5/25/2012	14:24	jrr
Nitrite as N	1.18	0.054	mg/Kg	*353.2	5/25/2012	14:24	jrr
Total Kjeldahl Nitrogen	1,910	28	mg/Kg	351.2 (Rev 2.0, 1993)	5/29/2012	13:42	jrr
Total Phosphorus	847.00	10.6	mg/Kg	*365.1	6/1/2012	9:24	jrr
Total Arsenic	11.800	0.492	mg/Kg	6010C	6/4/2012	16:55	jrr
Total Nitrogen	1921	28.5	mg/Kg	Calc: 351.2/353.2	5/29/2012	13:42	jrr

<b>Sample Location:</b>	01-01-SS-04	<b>Sample Type:</b>	Composite - Solid
<b>Sample ID Number:</b>	1205230907	<b>Sample Date &amp; Time:</b>	5/22/2012 12:56 PM

Parameter	Result	IES QL	Units	Method	Analysis Date	Analysis Time	Analyst
Nitrate as N	61.1	0.677	mg/Kg	*353.2	5/25/2012	14:24	jrr
Nitrate/Nitrite as N	62.4	0.677	mg/Kg	353.2 (Rev 2.0, 1993)	5/25/2012	14:24	jrr
Nitrite as N	0.07	0.068	mg/Kg	*353.2	5/25/2012	14:24	jrr
Total Kjeldahl Nitrogen	1,900	34	mg/Kg	351.2 (Rev 2.0, 1993)	5/29/2012	13:42	jrr
Total Phosphorus	1,360.00	8.84	mg/Kg	*365.1	6/1/2012	9:24	jrr
Total Arsenic	8.630	0.657	mg/Kg	6010C	6/4/2012	16:57	jrr
Total Nitrogen	1962	34.7	mg/Kg	Calc: 351.2/353.2	5/29/2012	13:42	jrr

<b>Sample Location:</b>	01-01-SW-05	<b>Sample Type:</b>	Grab - Surface Water
<b>Sample ID Number:</b>	1205230821	<b>Sample Date &amp; Time:</b>	5/22/2012 1:40 PM

Parameter	Result	IES QL	Units	Method	Analysis Date	Analysis Time	Analyst
Ammonia as N	5.4	0.2	mg/L	*SM-4500NH3-F	6/1/2012		mi
E.coli	> 2419	1	N/CML	*Colilert-24/*Colilert-18	5/22/2012	17:25	sm
Fecal Coliform	20000	1	N/CML	*SM-9222-D	5/22/2012	17:45	nwampler
Nitrate/Nitrite as N	< 0.05	0.05	mg/L	353.2 (Rev 2.0, 1993)	5/29/2012	8:57	jrr
Total Kjeldahl Nitrogen	2.6	0.5	mg/L	*ASTM D3590-02 (A)	6/11/2012	10:37	nwampler
Total Coliform	> 2419	1	N/CML	*Colilert-24/*Colilert-18	5/22/2012	17:25	sm
Total Nitrogen	2.64	0.5	mg/L	*Calculation	6/13/2012	10:00	sm
Total Phosphorus	0.18	0.05	mg/L	*HACH 8190	6/1/2012	13:00	sm
Total Suspended Solids	26	1	mg/L	*SM-2540-D	5/29/2012	8:30	nwampler
Total Arsenic	< 0.005	0.005	mg/L	200.7	6/4/2012	10:52	jrr



## Inboden Environmental Services, Inc.

5790 Main Street, Mt. Jackson, VA 22842

## Analytical Report Form

Customer: SAIC  
8301 Greensboro Drive  
McLean, VA 22102  
Contact: [REDACTED]  
Special Notes: REVISED

Report Date: 6/13/2012  
Batch ID:  
Received Date: 5/22/2012  
Sampler: Sampled by, Client  
Sample Priority: Normal

Sample Location: 01-01-SW-06  
Sample ID Number: 1205230816

Sample Type: Grab - Surface Water  
Sample Date & Time: 5/22/2012 1:46 PM

Parameter	Result	IES QL	Units	Method	Analysis Date	Analysis Time	Analyst
Ammonia as N	5.3	0.2	mg/L	*SM-4500NH3-F	6/1/2012	8:00	mi
Nitrate/Nitrite as N	< 0.05	0.05	mg/L	353.2 (Rev 2.0, 1993)	5/29/2012	8:57	jrr
Total Kjeldahl Nitrogen	2.5	0.5	mg/L	*ASTM D3590-02 (A)	6/11/2012	10:37	nwampler
Total Nitrogen	2.487	0.5	mg/L	*Calculation	6/13/2012	10:00	sm
Total Phosphorus	0.18	0.05	mg/L	*HACH 8190	6/1/2012	13:00	sm
Total Suspended Solids	27	1	mg/L	*SM-2540-D	5/29/2012	8:30	nwampler
Total Arsenic	< 0.005	0.005	mg/L	200.7	6/4/2012	10:54	jrr

Sample Location: 01-01-SW-07  
Sample ID Number: 1205221741

Sample Type: Grab - Surface Water  
Sample Date & Time: 5/22/2012 1:57 PM

Parameter	Result	IES QL	Units	Method	Analysis Date	Analysis Time	Analyst
Ammonia as N	< 0.2	0.2	mg/L	*SM-4500NH3-F	6/1/2012	8:00	mi
E.coli	> 2419	1	N/CML	*Colilert- 24/*Colilert-18	5/22/2012	17:25	sm
Fecal Coliform	8900	1	N/CML	*SM-9222-D	5/22/2012	17:45	nwampler
Nitrate/Nitrite as N	0.09	0.05	mg/L	353.2 (Rev 2.0, 1993)	5/29/2012	8:57	jrr
Total Kjeldahl Nitrogen	0.5	0.5	mg/L	*ASTM D3590-02 (A)	6/11/2012	10:37	nwampler
Total Coliform	> 2419	1	N/CML	*Colilert- 24/*Colilert-18	5/22/2012	17:25	sm
Total Nitrogen	0.61	0.5	mg/L	*Calculation	6/13/2012	10:00	sm
Total Phosphorus	0.06	0.05	mg/L	*HACH 8190	6/1/2012	13:00	sm
Total Suspended Solids	16	1	mg/L	*SM-2540-D	5/29/2012	8:30	nwampler
Total Arsenic	< 0.005	0.005	mg/L	200.7	6/4/2012	10:38	jrr

Sample Location: 01-01-SB-08  
Sample ID Number: 1205230908

Sample Type: Composite - Solid  
Sample Date & Time: 5/22/2012 2:30 PM

Parameter	Result	IES QL	Units	Method	Analysis Date	Analysis Time	Analyst
Nitrate as N	4.8	0.502	mg/Kg	*353.2	5/25/2012	14:24	jrr
Nitrate/Nitrite as N	6.76	0.502	mg/Kg	353.2 (Rev 2.0, 1993)	5/25/2012	14:24	jrr
Nitrite as N	1.93	0.05	mg/Kg	*353.2	5/25/2012	14:24	jrr
Total Kjeldahl Nitrogen	1,740	25.4	mg/Kg	351.2 (Rev 2.0, 1993)	5/29/2012	13:42	jrr
Total Phosphorus	627.00	9.27	mg/Kg	*365.1	6/1/2012	9:24	jrr
Total Arsenic	3.260	0.472	mg/Kg	6010C	6/4/2012	17:00	jrr
Total Nitrogen	1747	25.9	mg/Kg	Calc: 351.2/353.2	5/29/2012	13:42	jrr

**Inboden Environmental Services, Inc.****5790 Main Street, Mt. Jackson, VA 22842****Analytical Report Form**

**Customer:** SAIC  
8301 Greensboro Drive  
McLean, VA 22102

**Contact:** [REDACTED]  
**Special Notes:** REVISED

**Report Date:** 6/13/2012  
**Batch ID:**  
**Received Date:** 5/22/2012  
**Sampler:** Sampled by, Client  
**Sample Priority:** Normal

Sample Location:	01-01-FB-09			Sample Type:	Grab - Surface Water		
Sample ID Number:	1205221746			Sample Date & Time:	5/22/2012 2:44 PM		
Parameter	Result	IES QL	Units	Method	Analysis Date	Analysis Time	Analyst
Ammonia as N	< 0.2	0.2	mg/L	*SM-4500NH3-F	6/1/2012	8:00	mi
Nitrate/Nitrite as N	< 0.05	0.05	mg/L	353.2 (Rev 2.0, 1993)	5/29/2012	8:57	jrr
Total Kjeldahl Nitrogen	< 0.5	0.5	mg/L	*ASTM D3590-02 (A)	6/11/2012	10:37	nwampler
Total Nitrogen	< 0.5	0.5	mg/L	*Calculation	6/13/2012	10:00	sm
Total Phosphorus	< 0.05	0.05	mg/L	*HACH 8190	6/1/2012	13:00	sm
Total Suspended Solids	< 1	1	mg/L	*SM-2540-D	5/29/2012	8:30	nwampler
Total Arsenic	< 0.005	0.005	mg/L	200.7	6/4/2012	10:40	jrr

**Notes:**

Analytes with an asterisk (\*) present indicate NELAP accreditation. Analytes that have no asterisk(\*) are not NELAP accredited.

Reproduction of this report is not permitted, except in full, without the expressed written consent of Inboden Environmental Services Inc.

IES Quantification Limit is the concentration of the lowest calibration standard above zero with a reliable signal.

SM represents "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992.

The following parameters were subcontracted to James R. Reed & Associates (JRR): All soil analyses and surface water Arsenic

Reviewed and approved for Inboden Environmental Services, Inc.

By: [REDACTED]

Date:

**JUN 13 2012**

[REDACTED] Laboratory Director





**Inboden Environmental Services, Inc.**  
5790 Main Street, Mt. Jackson, VA 22842

**Analytical Report Form**

**Customer:** SAIC  
8301 Greensboro Drive  
McLean, VA 22102

**Contact:** [REDACTED]

**Special Notes:** REVISED

**Report Date:** 6/13/2012  
**Batch ID:**  
**Received Date:** 5/22/2012  
**Sampler:** Sampled by, Client  
**Sample Priority:** Normal